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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,195	08/07/2008	Martin Fogg	054054/314144	7579
97928	7590	05/19/2011	EXAMINER	
Zebra/Alston & Bird 101 S. Tryon Street Suite 4000 Charlotte, NC 28280-4000			ALAM, MIRZA	
			ART UNIT	PAPER NUMBER
			2612	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jonathan.thomas@alston.com
IP_Legal@zebra.com
USPTOIncoming@alston.com

Office Action Summary	Application No. 10/597,195	Applicant(s) FOGG, MARTIN	
	Examiner MIRZA ALAM	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/29/2008 and 07/14/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on July 14, 2006 and July 29, 2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the Examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 4-8 and 10-13** are rejected under **35 U.S.C. 102(e)** as being anticipated by **De Souza et al. (US 2004/0012496 A1)** (hereinafter **De Souza**).

Regarding claim 1, De Souza discloses a Radio Frequency Identification (RFID) tag (**Fig. 2, paragraph 0017, RFID tag 12**) comprising:

an electronic identification circuit coupled to an antenna, wherein the RFID tag is arranged to communicate with a RFID tag reader via said antenna, using RF energy (**Fig. 2, RFID tag 12, RFID circuitry 14 and RFID antenna 16, paragraph 0006, 0018**, RFID tag comprises RFID circuitry, an antenna and responsive to **electromagnetic radiation** known in the art as “**RF Energy**”), and

means sensitive to light for inhibiting communication between the RFID tag reader and the RFID tag (**Fig. 2, RFID tag 12, RFID circuitry 14 and RFID antenna 16**, RFID tag communicate with a RFID tag reader via antenna, (**paragraph 0005, 0006, 0020**, responsive to light of the predetermined frequency and enable operation between RFID circuitry and the antenna when light is detected, When no light is detected at the base terminal of the phototransistor 20, the phototransistor is turned OFF and there is an open electrical connection between the **circuitry 14 and the antenna 16**. When a sufficient intensity of light is detected at the base terminal of the phototransistor 20, the phototransistor is turned ON and there is a closed electrical connection between the circuitry 14 and the antenna 16).

Regarding claim 4, De Souza discloses the means sensitive to light is arranged to substantially prevent information to be transmitted from said RFID tag to said reader in the absence of light of more than a predetermined threshold (**paragraph 0005, 0006, 0020**, responsive to light of the **predetermined frequency (“as predetermined threshold”)** and enable operation between RFID circuitry and the antenna when light is detected, When no light is detected at the base terminal of the phototransistor 20, the phototransistor is turned OFF and there is an open electrical connection between the RFID **circuitry 14 and RFID antenna 16**. When a **sufficient intensity of light (“as more than”)** is **detected** at the base terminal of the phototransistor 20, the phototransistor is turned ON and there is a closed electrical connection between the circuitry 14 and the antenna 16).

Regarding claim 5, De Souza discloses the means sensitive to light is arranged to reduce the range over which said RFID tag can transmit information to reader in the absence of light of more than a predetermined threshold (**paragraph 0005, , 0020, 0021, 0025**, responsive to light of the **predetermined frequency (“as predetermined threshold”)** and enable operation between RFID circuitry and the antenna when light is detected, When no light is detected at the base terminal of the phototransistor 20, the phototransistor is turned OFF and there is an open electrical connection between the circuitry 14 and the antenna 16. When a **sufficient intensity (“as more than”) of light is detected**

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at the base terminal of the phototransistor 20, the phototransistor is turned ON and there is a closed electrical connection between the circuitry 14 and the antenna 16).

Regarding claim 6, De Souza discloses the means sensitive to light is selected from one of a photodiode, a phototransistor, a photocell or a solar cell (**paragraph 0019, 0020**).

Regarding claim 7, De Souza discloses a high-value object including a RFID tag according to claim 1 (**Fig. 1, check 10, paragraph 0021, 0022, high valued object “banknote or check”**).

Regarding claim 8, De Souza discloses use of a RFID tag according to claim 1 to tag a high-value object (**Fig. 1, check 10, paragraph 0021, 0022, high valued object “banknote or check”**).

Regarding claim 10, De Souza discloses the means sensitive to light is arranged to inhibit said communication when exposed to ambient light (**paragraph 0020**, when no light is detected at the base terminal of the phototransistor 20, the phototransistor is turned OFF and there is an open

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electrical connection between the circuitry 14 and the antenna 16. When a sufficient intensity of light ("sufficient intensity of light **which could be ambient light or some light**") is detected at the base terminal of the phototransistor 20, the phototransistor is turned ON and there is closed electrical connection between the RFID circuitry 14 and RFID antenna 16. Thus, the **RFID tag 12** is operative when light is detected at the base terminal of the phototransistor 20, and is inoperative when no light is detected at the base terminal of the phototransistor 20).

Regarding claim 11, De Souza discloses a Radio Frequency Identification (RFID) tag (**Fig. 2, RFID tag 12, RFID circuitry 14 and RFID antenna 16**) comprising:

an electronic identification circuit coupled to an antenna, wherein the RFID tag is arranged to communicate with a RFID tag reader via said antenna, using RF energy (**Fig. 2, RFID tag 12, RFID circuitry 14 and RFID antenna 16**, RFID tag communicate with a RFID tag reader via antenna, **paragraph 0006, 0018**, RFID tag comprises RFID circuitry, an antenna and responsive to **electromagnetic radiation** known in the art as "**RF Energy**" to communicate with RFID reader), and

means sensitive to light for controlling communication between the RFID tag reader and the RFID tag (**paragraph 0005, 0006, 0020**, responsive to light of the predetermined frequency and enable operation between RFID circuitry and

the antenna when light is detected, When no light is detected at the base terminal of the phototransistor 20, the phototransistor is turned OFF and there is an open electrical connection between the RFID circuitry 14 and RFID antenna 16. When a sufficient intensity of light is detected at the base terminal of the phototransistor 20, the phototransistor is turned ON and there is a closed electrical connection between the circuitry 14 and the antenna 16).

Regarding claim 12, De Souza discloses the electronic identification circuit is powered by energy received from means sensitive to light when said means sensitive to light is exposed to substantially continuous, ambient light (**Fig. 2 and 5, RFID tag 12, RFID circuitry 14 and RFID antenna 16, paragraph 0006, 0027**, RFID tag comprises RFID circuitry, an antenna and responsive to **electromagnetic radiation** well known in the art as “**RF Energy**”, **paragraph 0005, 0006, 0020**, When no light is detected at the base terminal of the phototransistor 20, the phototransistor is turned OFF and there is an open electrical connection between the circuitry 14 and the antenna 16. When a sufficient intensity of light is detected (" **which could be ambient light or some light**") at the base terminal of the phototransistor 20, the phototransistor is turned ON and there is a closed electrical connection between the circuitry 14 and the antenna 16).

Regarding claim 13, De Souza discloses the means sensitive to light is sensitive to visible light irrespective of the frequency of that light (One in ordinary skilled in art know light is always visible. **Paragraph 0020**, the RFID tag 12 is operative when light of the predetermined frequency is detected at the base terminal of the phototransistor 20, and is inoperative when no light of the predetermined frequency is detected at the base terminal of the phototransistor 20, **Fig. 5, paragraph 0027**, the capacitance of the capacitor 102 is selected such that the transistor turns ON in response to a **tuned frequency** received on the antenna 16b. This tuned frequency at which the transistor 100 turns ON is different from the interrogating frequency associated with operation of the RFID tag 12b, **RFID tag 12 is operative with tuned frequency or predetermined frequency or any frequency** means not dependent on frequency, its operation only depends on **light present or no light presence** at the base terminal of the phototransistor).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claim 2** is rejected under **35 U.S.C. 103(a)** as being unpatentable over **De Souza et al. (US 2004/0012496 A1)** (hereinafter **De Souza**) in view of **Cato (US 5,874,724)** (hereinafter **Cato**).

Regarding claim 2, De Souza discloses the electronic identification circuit is powered by RF energy received via said antenna (**Fig. 2 and 5, RFID tag 12, RFID circuitry 14 and RFID antenna 16, paragraph 0006, 0027**, RFID tag comprises RFID circuitry, an antenna and responsive to **electromagnetic radiation** well known in the art as “**RF Energy**”, When no electromagnetic radiation (“**RF Energy**”) is received at the antenna 16b (Fig 5) and detected at the base terminal of the transistor 100, the transistor is turned OFF and there is an open electrical connection between the base and emitter terminals of the transistor. In this case, the RFID circuitry 14b and the antenna 16b (both in Fig. 5) are not cooperatively connected to each other. When electromagnetic radiation of sufficient intensity is received at the antenna 16b and detected at the base terminal of the transistor 100, the transistor is turned ON and there is a

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closed electrical connection between the collector and emitter terminals of the transistor. In this case, the RFID circuitry 14b and the antenna 16b are cooperatively connected to each other).

De Souza fails to disclose multiple antenna or via a further antenna.

In analogous art, Cato discloses multiple antenna or via a further antenna (**Fig. 1, antenna 122 and antenna 114, col. 3, lines 13-20**).

Therefore, it would have been obvious to one of ordinary skill in the art to modify **De Souza** with **Cato** to include multiple antennas to transfer electromagnetic radiation and controlling operation between the RFID circuitry and the antenna.

The motivation would have been to include multiple antennas to transfer electromagnetic radiation to establish better communication with RFID tag.

7. **Claims 3 and 9** are rejected under **35 U.S.C. 103(a)** as being unpatentable over **De Souza et al. (US 2004/0012496 A1)** (hereinafter **De Souza**) in view of **Lane et al (US 2004/0233040 A1)** (hereinafter **Lane**).

Regarding claim 3, De Souza fails to disclose the electronic identification circuit is powered by a source of energy other than said antenna.

In analogous art, Lane discloses the electronic identification circuit is powered by a source of energy other than said antenna (**paragraph 0015, 0126**, tag have a battery to provide power to the integrated circuit 78).

Therefore, it would have been obvious to one of ordinary skill in the art to modify **De Souza** with **Lane** to include external battery to provide power to RFID tag to increase read range and reliability of tag read.

The motivation would have been to include external battery to provide power to establish better communication with RFID tag and reader and increase read range and reliability of tag read.

Regarding claim 9, De Souza fails to disclose a high-value object according to claim 7, wherein the high-value object is selected from a banknote and a credit card.

In analogous art, Lane discloses a high-value object according to claim 7, wherein the high-value object is selected from a banknote and a credit card (**paragraph 0087**).

Therefore, it would have been obvious to one of ordinary skill in the art to modify **De Souza** with **Lane** to attached RFID tag to high valued object to authenticate documents.

The motivation would have been to attach RFID tag to high valued object to authenticate documents and or the data associated with the document is not counterfeit for better protection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Jesme (US 2006/0065714 A1) discloses Passport reader for processing a passport having an RFID element

De Souza (US 2004/0000987 A1) discloses Check fraud detection process using checks having radio frequency identifier (RFID) tags and a system therefor.

Rudolph (US 2002/0005774 A1) discloses RFID Tag for Authentication and Identification.

Gray (US 2006/0115797 A1) discloses Bar codes or radio frequency identification tags on paper currency, checks, credit/debit cards and personal identification.

Heinrich (US 6104281 A) discloses Radio frequency identification transponder with electronic circuit enabling/disabling capability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MIRZA ALAM whose telephone number is (571)270-7197. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on (571)272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MIRZA ALAM/
Examiner, Art Unit 2612

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612